

**REMARKS**

Claims 1-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka et al., U.S. Patent No. 6,489,952. Applicants traverse this rejection because Tanaka et al. do not disclose or even suggest a voltage offset to either a single positive or negative constant level at all times during operation, wherein the value of the offset has the *same polarity* at all times during operation except during signal application, and wherein the *offset is applied automatically* at all times during operation except during signal application, as recited in all amended independent claims 1, 3, 7, 8, 9, 12 and 17. For ease of reference in the present remarks, the feature of the single polarity offset will be referred to as a “non-inversion” driving system.

In the Official Action (Paper 20060501), the Examiner asserts that a “non-inversion” driving system (such as the one disclosed in the present invention) is a well-known alternative available to the skilled artisan as a matter of design choice. The Examiner asserts that the “non-inversion” driving system reduces the complexity of a display drive as compared to an “inversion” driving system. The Examiner further asserts that it would have been an obvious design choice to the skilled artisan to provide a non-inverting offset to maintain the benefits of the offset (decreasing the contrast ratio) while at the same time reducing the complexity of the drive system. Applicants respectfully traverse this statement of motivation suggested by the Examiner.

The Examiner’s rejection is flawed because there is no motivation to alter Tanaka et al. to provide a non-inverting offset. There is a lack of motivation because to

provide Tanaka with a non-inverting offset (that would effectively decrease the contrast ratio), the driving system of Tanaka would have to be significantly changed to support such a non-inverting offset. In Tanaka, the specific inverting offset method works with the specific driving system of Tanaka. Specifically, when the odd line is driven ( $S_1, S_3, \dots S_{n-1}$ ), negative COM1 is applied, and when the even line is driven ( $S_2, S_4, \dots S_n$ ), positive COM2 is applied. Thus, the offset is sometimes negative (COM1) and sometimes positive (COM2) during each frame, depending on which line is driven.

A non-inverting offset cannot simply be applied to the Tanaka driving system. To derive the present invention from Tanaka, both the offset method and the entire driving system would have to be changed. Thus, there is no motivation to change Tanaka's offset method to a non-inverting offset method because the entire driving system would have to be changed too.

Nor is there motivation to change both the offset method and the driving system because Tanaka discloses that an inverting driving system is a simple and frequently used driving system. In fact, the background of the invention discourages such drastic changes to the Tanaka driving system, where Tanaka states:

“For the purpose of preventing the above ‘burning’ of the screen, a driving system called the inversion driving system is *often* used...This system is a driving system which can be *easily carried out* among the inversions driving systems. The frame inversion system is *conventionally most frequently adopted* for an active matrix type liquid display device.”

Thus, Tanaka discloses that an inversion system is the conventional and most frequently adopted drive system. This is further evidence of a lack of motivation to

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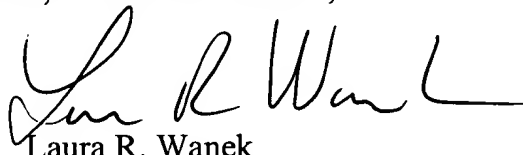
provide Tanaka with a non-inverting offset since the inverting system is the conventional system.

For the foregoing reasons, Applicants believe that this case is in condition for allowance, which is respectfully requested. The Examiner should call Applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

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By

A handwritten signature in black ink, appearing to read 'Laura R. Wanek', written over a horizontal line.

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